

MASON, C. et al.  
Appl. No. To be assigned  
US National Phase of PCT/GB03/01334  
September 27, 2004

**AMENDMENTS TO THE ABSTRACT:**

Please delete the abstract and include the substitute attached abstract  
after the claims.

## **ABSTRACT**

Disclosed is an organ culture device for culturing a viable organ. The device provides culture medium for culturing the viable organ using a pump. The pump has a pump chamber located between an inlet and an outlet. The pump provides pulsatile pumping action of the culture medium by repeated deformation of a resilient tubular sidewall of the pump chamber by pressurised gas. The flow path of the culture medium may be circulatory or non-circulatory. The device has a reservoir and a collection vessel for the culture medium. Gas transfer into and out of the culture medium is also provided. Also disclosed is the pump itself and a gas pressure control device for delivering pulsed pressurised gas, e.g. to the pump.